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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/736,253

12/15/2003

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EXAMINER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/736,253	<b>Applicant(s)</b> CREAMER ET AL.	
	<b>Examiner</b> Eunice Ng	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3, 5-9, 11-15, 17 and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5-12, 14-21 and 23-27 of copending Application No. 10/736,258. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-3, 5-9, 11-15, 17 and 18 in the instant application corresponds to claims 1-3, 5-12, 14-21 and 23-27 in copending Application No. 10/736,258 since all the limitations in claims 1-3, 5-9, 11-15, 17 and 18 of this application are also present in claims 1-3, 5-12, 14-21 and 23-27 of the copending application. More specifically,

Claims 1, 7 and 13 in the instant application recites “biometric information” over an “established telephone call” which is encompassed in claims 1-2, 10-11 and 19-20 of the copending application which recites “identifying information” [biometric information] over a “voice communications link,” wherein the voice communications link is a “telephony communications link [telephone call].”

Claims 2, 8 and 14 in the instant application recites “extracting at least one attribute from the voice information...comparing...and generating the biometric information based upon said comparing step” which is encompassed in claims 3, 12 and 21 of the copending application which recites “identifying information indicates whether the call participant has been authenticated,” which requires the extracting, comparing, and generating steps recited above.

Claims 3, 9, and 15 in the instant application recites “removing inaudible portions of the voice information” and “embedding the biometric information in place of the inaudible portions within a voice stream carried over the call” which is encompassed in claims 5, 14 and 23 of the copending application which recites removing inaudible portions of a “speech signal” [voice information] and embedding “identifying information” [biometric information] in place of the inaudible portions of the speech signal within the voice stream.

Claims 5, 11 and 17 in the instant application recites “the subscriber receives the biometric information and voice signals, both of the speaker, substantially concurrently over the call” which is encompassed in claims 7-9, 16-18 and 25-27 of the copending application which recites “presenting the identifying information [biometric information]” and “playing an audible representation of the voice stream [voice signals],” which is “played substantially concurrently with the presentation of the identifying information.”

Claims 6, 12 and 18 in the instant application recites “decoding the received biometric information” and “presenting the information to the subscriber” which is encompassed in claims 6-7, 15-16, and 24-25 of the copending application which recites decoding the “identifying information [biometric information]” and “presenting a representation of the identifying information.”

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-2, 4-8, 10-14 and 16-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Petrushin, US Patent No. 7,222,075.

Regarding claims 1, 7 and 13, Petrushin teaches a method, system, and machine readable storage, for providing biometric information over an established telephone call between a speaker and a subscriber comprising:

receiving voice information from the speaker over the call (col. 4, ll. 58-61, teaches “detecting the emotional state of a caller [speaker] in telephone call center conversations [voice information over the call]”);

determining biometric information from the voice information of the speaker (col. 3, ll. 11-16, teaches “providing a speech signal [voice information]”; col. 3, ll. 33-38, teaches “calculating statistics of the speech...logic...for classifying the speech as belonging to [determining] at least one of a finite number of emotional states [biometric information]”).

encoding the biometric information; and sending the biometric information to the subscriber over the call (col. 3, ll. 37-38, teaches the “system also comprises logic for outputting an indication of the at least one emotional state [biometric information]”; col. 3, ll. 51-52, teaches “an output device coupled to the computer for notifying a user of the emotional state detected in the voice signal”; see also col. 4, ll. 43-61).

Regarding claims 2, 8 and 14, Petrushin teaches said determining step comprising:

extracting at least one attribute from the voice information (col. 3, ll. 13-15, teaches “extracting at least one acoustic feature [attribute] from the speech signal [voice information]”);

comparing the at least one attribute with voice metrics (col. 3, ll. 48-53, teaches “a database of speech signal features and statistics [voice metrics] accessible to the computer for comparison with features of the voice signal); and

generating the biometric information based upon said comparing step (col. 3, ll. 48-53, teaches, “a database of speech signal features and statistics accessible to the computer for comparison with features of the voice signal [comparing step] and an output device coupled to the computer for notifying a user of the emotional state [biometric information] detected in the voice signal”).

Regarding claims 4, 10 and 16, Petrushin teaches wherein the biometric information specifies at least one of an indication of voice level, stress level, voice inflection, and an emotional state (col. 3, ll. 20-22, teaches “outputting an indication of the at least one emotional state [biometric information] in human-recognizable format”).

Regarding claims 5, 11 and 17, Petrushin teaches wherein the subscriber receives the biometric information and voice signals, both of the speaker, substantially concurrently over the call (col. 13, ll. 1-6, teaches “emotion of the caller [biometric information] would be determined during [substantially concurrently] the caller’s conversation [voice signals] with the technician answering the call. The emotion could then be relayed [substantially concurrently] to emergency personnel, i.e., police, fire, and/or emergency personnel, so they are aware of the emotional state of the caller”).

Regarding claims 6, 12 and 18, Petrushin teaches decoding the received biometric information; and presenting the information to the subscriber (col. 10, ll. 45-55, teaches “In a call center environment...annotations and decisions can be saved and the results output [presented]...output may take the form of a signal or message on a computer, a printed message from a printer, a video display or output device connected to a computer, an audible signal or tone output from an audio output device, or even an alarm”).

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrushin in view of Frantz, US Patent No. 6,904,264.

Petrushin does not explicitly teach, but Frantz teaches said encoding step comprising: removing inaudible portions of the voice information; and embedding the biometric information in place of the inaudible portions within a voice stream carried over the call (col. 1, ll. 33-44, teaches “Audio coding algorithms or schemes...based on acoustic measurements as a method for identifying those portions of the audio transmission [voice information] that are inaudible to [the human] ear and need not be transmitted...delete [remove] the inaudible portion...the available bandwidth can be used as a data channel [i.e. for embedding information in place of the inaudible portions]”).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching elements of Petrushin with Frantz because Frantz teaches that this would “[permit] significant audio compression and conservation of bandwidth without degrading audio quality” (col. 1, ll. 38-44).



*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent 5,987,415 (Breese et al.), teaches modeling a user's emotion and personality in a computer user interface.

US Patent 6,104,922 (Baumann), teaches user authentication in a communication system utilizing biometric information.

US Patent Pub. 2004/0006476 (Chiu), teaches behavioral adaptation engine for discerning behavioral characteristics of callers interacting with a VXML-compliant voice application.

US Patent 6,721,706 and 6,728,679 (Strubbe et al.), teaches environment-responsive and self-updating user interface/entertainment device that simulates personal interaction; the system includes a mood/personality classifier which generates a mood/personality state signal.

US Patent Pub 2005/0010411 (Rigazio et al.), teaches speech data mining for call center management; mined speech data includes customer frustration phrases and/or contexts extracted from speech recognition results, such as topics, complaints, solutions, and resolutions.

US Patent Pub. 2004/0083101 (Brown et al.), teaches a system and method for data mining of contextual conversations; voice inflections and any emotional stress present in the voices of the users can be detected added to collected information.

Scherer et al., "Vocal Cues in Emotion Encoding and Decoding."


Art Unit: 2626

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eunice Ng whose telephone number is 571-272-2854. The examiner can normally be reached on Monday through Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EN  
7/10/07

  
**DAVID HUDSPETH**  
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